

### **REMARKS**

#### **Status of the Claims**

Claims 1, 5-12, 14-16 and 22-30 are currently pending in the application. Claims 1-18 stand rejected. The Examiner objects to claim 15. Claims 1, 5-12 and 14-16 have been amended. Claims 2-4, 13 and 17-21 have been cancelled. All amendments and cancellations are made without prejudice or disclaimer. New claims 22-30 have been added. No new matter has been added by way of the present amendments. Specifically, the amendment to claim 1 is supported at least by claims 2, 4, 13, 17, and 18, now cancelled, and generally by the specification, since other modifications to claim 1 are merely to conform the claims to U.S. practice. Amendments to claims 5-12 and 14-16 are likewise to conform the claims to U.S. practice and are not intended to narrow the claimed subject matter in any manner, except for the following. Conditional phrases preceding certain elements recited in the claims have been removed from claims 5-12 and 14-16 and placed in new dependent claims 22-30 to conform the claims more closely to U.S. practice. Reconsideration is respectfully requested.

#### **Objections to the Oath/Declaration**

The Examiner objects to the Oath/Declaration for failing to identify the citizenship of each Inventor according to 37 C.F.R. § 1.497. (*See*, Office Action of March 5, 2008, at page 2, hereinafter, "Office Action"). When an Assignment was filed on October 12, 2005 in the present application, a combined Declaration/Power of Attorney form was also filed. During the filing of these two documents, the second page of each document was inadvertently swapped. Thus, the Assignment was recorded with the second page of the Declaration/Power of Attorney, and the Declaration/Power of Attorney was accidentally filed with the second page of the Assignment.

A brief review of the Image File Wrapper of the present application, and the Assignment records of the present application, will verify this fact.

To correct this unintentional error, Applicants submit herewith a Supplement Declaration/Power of Attorney. Applicants have also endeavored to re-record the Assignment.

Applicants respectfully request entry of the Supplemental Declaration/Power of Attorney in light of the explanation provided above and in consideration of the fact that this clerical error was made unintentionally and without any deceptive intent.

Reconsideration and withdrawal of the objection to the Oath/Declaration are respectfully requested.

### **Objections to the Specification**

The Examiner objects to the specification because it does not appear to follow the suggested guidelines provided in Rule 77(b). (*Id.* At page 3). However, Applicants believe that all of the necessary sections of the specification as suggested or recommended by Rule 77(b) are present and identifiable in the present specification. Thus, no further amendment is believed to be necessary.

Therefore, reconsideration and withdrawal of the objection to the specification are respectfully requested.

### **Objections to the Claims**

The Examiner objects to claim 15. (*See*, Office Action, at page 4). Applicants have endeavored herein to amend the claims to conform them more closely to U.S. practice and

correct any possible typographical and grammatical errors. Particularly, the spelling of methoxy and ethoxy were corrected in claim 15.

Reconsideration and withdrawal of the objection to claim 15 are respectfully requested.

#### **Rejections Under 35 U.S.C. § 112, First Paragraph**

Claim 1 stands rejected under 35 U.S.C. § 112, first paragraph, for failing to comply with the written description requirement. (*See*, Office Action, at pages 4-6). Applicants traverse the rejection as set forth herein.

The Examiner states that Applicants specification lacks sufficient support for the term “starch derivatives.” (*Id.* at page 4).

Although Applicants do not agree that claim 1 lacks written description support in the specification, to expedite prosecution, claim 1 has been amended herein to remove the term “derivative.” The term “derivative” in claim 1 has been replaced by the phrase “starch ester or starch ether” which is supported at least by original claim 13 and by the specification, at page 7, lines 25-27, as stated by the Examiner.

Reconsideration and withdrawal of the written description rejection of claim 1 are respectfully requested.

#### **Rejections Under 35 U.S.C. § 112, Second Paragraph**

Claims 5, 7, 9, 10, 14, 16 and 17 stand rejected under 35 U.S.C. § 112, second paragraph, for failing to particularly point out and distinctly claim the subject matter which Applicants

regard as the invention. (*See*, Office Action, at pages 6-8). Claim 17 has been cancelled, thereby obviating the rejection of claim 17. Applicants traverse the rejection as to the remaining claims.

The Examiner states that the claims, such as claims 7, 9, 14 and 16, recite both broad and narrow ranges of limitations, including phrases like “such as” and “preferably”.

Applicants have amended all of the dependent claims herein to conform them more closely to U.S. practice. The incompatible limitations have been removed from the identified claims and placed into new dependent claims 23-30. Applicants also note that the term “where necessary” has been cancelled from claim 10.

Reconsideration and withdrawal of the indefiniteness rejection of claims 5, 7, 9, 10, 14 and 16 are respectfully requested.

**Rejections Under 35 U.S.C. § 102(b)**

**Roth, U.S. Patent No. 3,346,558**

Claims 1-5, 10-16 and 18 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Roth, U.S. Patent No. 3,346,558 (hereinafter referred to as “Roth”). (*See*, Office Action, at pages 9-10). Claims 2-4, 13 and 18 have been cancelled, thereby obviating the rejection of these claims. Applicants traverse the rejection as to the remaining claims.

The Examiner states that Roth discloses a process for preparing polyol-glycosides comprising reacting starch, polyol and acid at an elevated temperature and pressure using a screw-type extruder, citing columns 1 and 2.

Although Applicants do not agree that Roth anticipates the presently claimed invention, to expedite prosecution, independent claim 1 has been amended to recite the limitations of

dependent claim 17. Since claim 17 is not indicated as being anticipated by Roth, it is believed that claim 1 is also not anticipated by Roth as reciting limitations not disclosed in Roth. Anticipation requires that "each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." (*See, In re Robertson*, 169 F.3d 743, 745, 49 U.S.P.Q.2d 1949 (Fed. Cir. 1990), quoting *Verdegaal Bros., Inc. v. Union Oil Co.*, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987)).

Dependent claims 5 and 6-16 are not anticipated as, *inter alia*, depending from a non-anticipated base claim, amended claim 1.

Reconsideration and withdrawal of the anticipation rejection of claims 1, 5 and 10-16 are respectfully requested.

Carr, J. App. Polymer Sci.

Claims 1-5, 14-16 and 18 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Carr, *J. App. Polymer Sci.*, 42:45-53, 1991 (hereinafter referred to as "Carr"). (*See*, Office Action, at pages 10-11). Claims 2-4 and 18 have been cancelled, thereby obviating the rejection of these claims. Applicants traverse the rejection as to the remaining claims.

The Examiner states that Carr discloses a starch-derived glycol and glycerol glycoside prepared using a twin-screw extruder and an acid catalyst, citing to page 45. The Examiner further states that Carr discloses the reaction of starch with ethylene glycol or glycerol and sulfuric acid at page 46.

Although Applicants do not agree that the presently claimed invention is anticipated by the disclosure of Carr, to expedite prosecution, claim 1 has been amended to recite the

limitations of claims 13 and 17. Since claims 13 and 17 are not anticipated by the disclosure of Carr, claim 1, at least as amended, is also believed to not be anticipated by Carr because claim 1 recites limitations not disclosed by Carr. (*See, In re Robertson*, 169 F.3d at 745).

Dependent claims 5 and 14-16 are not anticipated as, *inter alia*, depending from a non-anticipated base claim, amended claim 1.

Reconsideration and withdrawal of the anticipation rejection of claims 1, 5 and 14-16 are respectfully requested.

Subramanian et al., *Cereal Chem.*

Claims 1-5, 10, 11, 14-16 and 18 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Subramanian et al., *Cereal Chem.*, 73(2):179-184, 1996 (hereinafter referred to as "Subramanian et al."). (*See, Office Action*, at page 11). Claims 2-4 and 18 have been cancelled, thereby obviating the rejection of these claims. Applicants traverse the rejection as to the remaining claims.

The Examiner states that Subramanian et al. disclose reaction of starch, ethylene glycol and sulfuric acid which is extruded with a twin-screw extruder. The Examiner further states that Subramanian et al. disclose use of an extruder device which has four separately adjustable heating zones.

Although Applicants do not agree that claim 1 is anticipated by the disclosure of Subramanian et al., to expedite prosecution, claim 1 has been amended to recite the limitations of non-anticipated claims 13 and 17. Thus, claim 1, at least as amended, is believed to not be

anticipated by the disclosure of Subramanian et al. because claim 1 recites limitations not disclosed therein. (*See, In re Robertson*, 169 F.3d at 745).

Dependent claims 5, 10, 11 and 14-16 are not anticipated as, *inter alia*, depending from a non-anticipated base claim, amended claim 1.

Reconsideration and withdrawal of the anticipation rejection of claims 1, 5, 10, 11 and 14-16 are respectfully requested.

#### **Rejections Under 35 U.S.C. § 103(a)**

Claims 1, 6-9 and 17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Roth in view of Leitheiser et al., *Ind. Eng. Chem. Res. Dev.*, 5(3):276-282, 1966 (hereinafter, "Leitheiser et al."). (*See*, Office Action, at pages 12-14). Claim 17 has been cancelled, thereby obviating the rejection of claim 17. Applicants traverse the rejection as to the remaining claims.

The Examiner states that Roth discloses use of an alcohol at a concentration of 0.1 to 0.2 equivalents per gram mole of starch. The Examiner states that Roth also discloses mixing starch, polyhydric alcohol and acid which is then dried to form a superficially dry mixture. The Examiner states that Roth also discloses conversion of this into a fluid mass in the first zone of the reactor of a fluidized-bed type of a mixing device to produce a pre-mixture. The Examiner admits that Roth does not disclose or suggest using a phosphorous-containing acid as the acid catalyst. However, the Examiner cites to Leitheiser et al. for disclosure of mixing of an alcohol and an acidic substance prior to performing a transglycosylation reaction, wherein the acidic substance is an acid catalyst which is sulfuric acid and phosphoric acid. The Examiner concludes that it would have been obvious to one of ordinary skill in the art to combine the

process for preparing polyol-glycosides comprising reacting the starch, polyol and acid using the screw-type extruder disclosed in Roth with the disclosure of mixing the alkanol and acidic substance prior to performing a transglycosylation reaction using an acidic catalyst of sulfuric acid and phosphoric acid as disclosed in Leitheiser et al.

Although Applicants do not agree that claim 1 is obvious in light of the combined disclosures of Roth and Leitheiser et al., to expedite prosecution, claim 1 has been amended to recite the limitations of dependent claims 2, 4, 13 and 18. The Examiner indicates that dependent claims 2, 4, 13 and 18 are not obvious. Thus, claim 1, at least as amended, is also believed to be non-obvious because claim 1 recites limitations not disclosed in any of the cited references.

Since no independent reasoning is provided to support the rejection of dependent claims 6-9, these claims are also believed to be non-obvious for, *inter alia*, depending from a non-obvious base claim, amended claim 1.

Reconsideration and withdrawal of the obviousness rejection of claims 1 and 6-9 are respectfully requested.

#### **Rejections Under the Obviousness-Type Double Patenting Doctrine**

Claims 1, 12-14 and 18 stand provisionally rejected under the judicially created doctrine against obviousness-type double patenting as being unpatentable by co-pending U.S. Patent Application Serial No. 10/504,296. (See, Office Action, at pages 14-16). Claim 18 has been cancelled, thereby obviating the rejection of claim 18. Applicants traverse the rejection as to the

remaining claims. The Examiner is respectfully requested to follow the procedure that is described in M.P.E.P. § 804(I)(B)(1), and reads as follows:

If a "provisional" nonstatutory obviousness-type double patenting (ODP) rejection is the only rejection remaining in the earlier filed of the two pending applications, while the later-filed application is rejectable on other grounds, the examiner should withdraw that rejection and permit the earlier-filed application to issue as a patent without a terminal disclaimer. If the ODP rejection is the only rejection remaining in the later-filed application, while the earlier-filed application is rejectable on other grounds, a terminal disclaimer must be required in the later-filed application before the rejection can be withdrawn.

If "provisional" ODP rejections in two applications are the only rejections remaining in those applications, the examiner should withdraw the ODP rejection in the earlier filed application thereby permitting that application to issue without need of a terminal disclaimer. A terminal disclaimer must be required in the later-filed application before the ODP rejection can be withdrawn and the application permitted to issue. If both applications are filed on the same day, the examiner should determine which application claims the base invention and which application claims the improvement (added limitations). The ODP rejection in the base application can be withdrawn without a terminal disclaimer, while the ODP rejection in the improvement application cannot be withdrawn without a terminal disclaimer.

Accordingly, the Examiner is respectfully requested to issue a Notice of Allowance in the present application and to address any possible double patenting issues in the co-pending applications. Furthermore, since amendments are made in the present application to independent claim 1, and prosecution is continuing in the co-pending application, these amendments are believed to distinguish the presently claimed subject matter over that recited in the claims of the co-pending application due to incorporation of the limitations of non-provisionally rejected dependent claims 2, 4 and 17.

### CONCLUSION

If the Examiner has any questions or comments, please contact Thomas J. Siepmann, Ph.D., Registration No 57,374, at the offices of Birch, Stewart, Kolasch & Birch, LLP.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to our Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under § 1.17; particularly, extension of time fees.

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Respectfully submitted,

By 

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Attachments: Substitute Combined Declaration/Power of Attorney (two pages)